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- (b) recovering from the ethyl acetate production zone an intermediate reaction product mixture comprising hydrogen and liquefiable products comprising ethyl acetate, ethanol, and by-products containing reactive carbonyl groups;
- (c) contacting at least a portion of the liquefiable products of the intermediate reaction product mixture with a selective hydrogenation catalyst in the presence of hydrogen in a selective hydrogenation zone maintained under selective hydrogenation conditions effective to selectively hydrogenate said by-products containing reactive carbonyl groups to corresponding alcohols;
- B2 (d) recovering from the selective hydrogenation zone a selectively hydrogenated reaction product mixture comprising ethyl acetate, ethanol, hydrogen and hydrogenated by-products comprising said corresponding alcohols;
- (e) distilling material of the selectively hydrogenated reaction product mixture in one or more distillation zones so as to produce a first composition comprising substantially pure ethyl acetate and a second composition comprising ethanol and water;
- (f) treating the second composition of step (e) to separate water therefrom and yield a third composition comprising ethanol with a reduced water content; and
- (g) recovering the third composition of step (f).

Please replace claim 3 with the following:

B3

3. (once amended) A process according to claim 2, wherein the ethanol:hydrogen molar ratio in the dehydrogenation zone is from about 1:10 to about 1000:1, the combined partial pressure of ethanol and hydrogen in the dehydrogenation zone is from about 3 bar (3×10^5 Pa) up to about 50 bar (5×10^6 Pa), and the temperature in the dehydrogenation zone is from about 100°C to about 260°C.

Please replace claim 4 with the following:

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4. (once amended) A process according to claim 3, wherein the combined partial pressure of ethanol and hydrogen in the

B4 dehydrogenation zone is at least about 6 bar (6×10^5 Pa) up to about 30 bar (3×10^6 Pa).

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cont Please replace claim 7 with the following:

B5 7. (twice amended) A process according to claim 1, wherein the selective hydrogenation conditions in the selective hydrogenation zone of step (c) include a reaction product mixture:hydrogen molar ratio of from about 1000:1 to about 1:1, a combined partial pressure of the liquefiable products of the intermediate reaction product mixture and hydrogen of from about 5 bar (5×10^5 Pa) to about 80 bar (8×10^6 Pa), and a temperature in the range of from about 20°C to about 160°C.

Please replace claim 18 with the following:

B6 18. (twice amended) A process according to claim 12, wherein an ethanol rich stream containing substantially all of the water in the selectively hydrogenated reaction product mixture is recovered from the bottom of the first distillation zone, while an overhead stream that contains light components having lower boiling points than ethyl acetate and its azeotropes with water and ethanol present in the selectively hydrogenated reaction product mixture is recovered from the first distillation zone, and in which the first distillate comprises a liquid draw stream which is recovered from an upper region of the first distillation zone and which comprises ethyl acetate, ethanol, water and minor amounts of other components.
